Comments on Draft Source Control Decision Document, for the General Electric (GE) Portland Inspection and Repair Service Center, Portland, Oregon Dated 28 April 2011

General Comments:

There are several facts and conditions to consider when offering an opinion whether stormwater discharge from the GE facility is not a significant current or future source of Willamette River water or sediment contamination. The following general comments are based upon the eight metrics (in *italics*) that were developed specifically to evaluate this source control decision. The italics statements are considerations that if met or were factual, would demonstrate that the facility is not a source. Each statement is followed by an opinion on the facility-specific information from the source control decision document.

1. *Source control actions at the facility should be applied, are achieving good results, can be expected to continue to perform adequately, and there is a mechanism in place to ensure that they will continue to be maintained and operated as long as there is a potential for contaminants in the system upstream of the control actions. Post-Source Control Measure (SCM) monitoring results indicate that the facility is not a significant ongoing source of contaminants to the Willamette River.* A number of source control actions have been implemented at the GE facility, including site cleaning, flushing or replacing pipes, new pavement and drainage controls, and stormwater treatment devices. The post-SCM sampling data do not completely support the conclusion that the facility is not a potential on-going source of contaminants to the Willamette River. Table 4 and Table 5 analytical results for four stormwater sampling events collected at SV-1 and MH-2 show consistent exceedances in all of the reported analytical results of at least one Screening Level Value (SLV) for certain metals (copper, zinc) and Total PCBs. A rationale that describes why the SLV exceedances in the monitoring results are not considered significant ongoing sources of contaminants was not provided (i.e. a description of what a "significant" result would be when interpreting the collected results). In addition, while GE proposes to continue its stormwater Best Management Practice (BMP) program, there was no timeframe or commitment to do so in perpetuity or stated conditions under which the BMP program could be suspended.
2. *The SCMs will be effective under any future configuration or activity at the facility, or there is a permit program in place to address the specific contaminants of concern from the facility.* There is no discussion provided to address future uses, or how the source controls will be maintained in perpetuity. The document does not describe conditions under which the source controls could be suspended. A permit program, such as the NPDES General Stormwater Permit, may not address the specific potential contaminants of concern from this facility.
3. *Most of the surface water from the facility ultimately discharges to a 54-inchdiameter City of Portland stormwater line that now discharges to the river; the remainder discharges to an existing combined sewer.* There are no plans to change the location or amount of discharge to the existing outlets at the facility.

4. *The high groundwater level is below the conveyance system on the facility and consequently does not provide a pathway from the facility. Groundwater may enter the 54-inch stormwater line downgradient and adjacent to the western boundary of the facility.* Groundwater has minimal influence on treatment SCMs. The groundwater pathway to the 54-inch stormwater line does not influence the on-site SCMs and redirecting the 54-inch discharge pipe to the treatment plant will have the same outcome for groundwater and surface water runoff.
5. *By December 2011, the City of Portland, as part of the Combined Sewer Overflow (CSO) abatement program, will divert flows from the 54-inch pipe to the City wastewater treatment plant. The 54-inch pipe may be the source of infrequent overflows to the Willamette River.* Discharge will continue until the future diversion is complete and GE has no control over the timing and schedule of the diversion. The pipe will divert stormwater flows to the treatment plant as part of the CSO Abatement Program, which will apparently divert a significant amount of the annual surface runoff from the facility to the treatment plant.
6. *The 54-inch pipe will be abandoned in 2012-2013 but discharges from the facility will continue to be routed to the treatment plant. The replacement pipe could continue to be the source of infrequent overflows to the Willamette River.* No information was provided to determine if the replacement pipe diversion would have the same performance as the 54-inch pipe (e.g. have the same frequency and volume of overflows). In addition, the configuration was not provided to determine if the future pipe would continue to intercept the path of groundwater contamination.
7. *The treatment plant does not discharge to the Willamette River and/or it effectively handles and minimizes discharge of contaminants of concern.* Information should be provided regarding the conditions or limitations, if any, to allowing runoff from the facility to be treated at the treatment plant and the capability and capacity of the plant to treat contaminants from the GE facility.
8. *Overflows are expected to be infrequent and/or of insignificant volume.* The expected frequency and volume of overflow to the river was not provided, so it is not possible to assess the potential loading from the facility after diversion to the combined sewer system. In addition, the discharge will continue until the future diversion is complete, and future overflows, although expected to be infrequent, have not been characterized by expected volume or loads of contaminants of concern.

In summary, the following information is needed to support the decisions that the facility is not a significant current or future source of contaminants to the Willamette River.

1. Provide a discussion and rationale to define the "significant" or "insignificant" contaminant levels for post-SCM discharges from the facility.
2. Provide a discussion to address source controls for future uses, including how the source controls will be applied in perpetuity, or conditions under which the source controls could be suspended. Describe future controls that could be applied by permit.

3. Future overflows, although expected to be infrequent, have not been characterized by expected volume or loads of contaminants of concern. Consequently, it is difficult to quantify the potential for contamination after the diversion is complete. The expected level of contaminants discharging to the combined sewer and the amount and frequency of predicted overflows should be provided.
4. Provide documents or confirmation of the proposed schedules for the 54-inch pipe diversion and the future replacement pipe. Describe contingencies, if any, if the proposed diversion system is modified or the program to divert the pipeline is changed.
5. Provide an assessment of the expected level of contaminants discharging to the combined sewer and the amount and frequency of predicted overflows.
6. Provide conditions under which the treatment plant will accept or reject the stormwater from the facility and the capability of the treatment plant to treat contaminants from the facility.

Specific Comments

1. Page 2 of 6, Paragraph 1, Item Number 2: This catchment does not drain to the 54-inch pipe that will be diverted to the treatment plant. It drains to a different combined sewer line. It is not clear if the conclusions of future rare and infrequent overflows also apply to this outfall.
2. Page 2 of 6, Paragraph 2, Last Sentence: The estimated frequency and overflow volumes should be provided, if known.
3. Page 5 of 6, Paragraph 1: Will GE continue its BMP stormwater program? It is not clear if this is critical to the conclusion that discharges are not significant sources of contaminants. If so, the conclusion should be conditional subject to continuing the program. If stormwater is no longer discharged, the BMP program could be stopped. Future city programs or permits may not apply the same standards or scrutiny to the facility.
4. Page 5 of 6, Source Evaluation Conclusions, Bullet 3: There is insufficient information to conclude that source controls have successfully minimized contamination in the stormwater pathway, based upon the results shown in Tables 4 and 5. A comparison or data evaluation should be provided to demonstrate what a significant source is and make a comparision to data from the four sampling events.